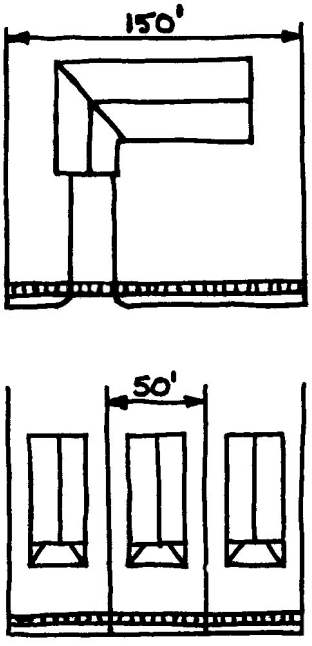
Sidewalks

Summary of Issues

For most of American history, sidewalks were considered an essential part of our communities. The unpaved, muddy, vehicular middle part of a street was no place for the pedestrian. Clean, dry walks along the side of the street provided a suitable, safe place for the pedestrian. Residential areas huddled close to places of work and shopping because, for most people, walking was the predominant form of getting around. Even with the coming of inter-city rail and later, intra-city streetcars, walking remained the primary way of reaching your final destination at either end of the ride. While electric trolleys opened up "street car suburbs", most homes continued to cluster within a few short blocks of the trolley stop. Sidewalks provided the means of walking from home to the streetcar. Thus, prior to the advent of the automobile, cities were generally compact in form and catered to the needs of the pedestrian.

As our cities have become more automobile dependent, sidewalks have gradually disappeared from most new suburban developments. In Salisbury, for example, the first phase, pre-war section of Milford Hills has sidewalks, while the second phase, developed after the war, does not. Unfortunately, this lack of interest in sidewalks continued for many years in most new developments in Salisbury.

Several factors have played into this phasing out of the sidewalk. First, as residential areas have become more isolated from shopping areas, parks, schools, and work places, we have grown to rely upon the automobile to get just about anywhere, In practical terms, where it once made sense to walk a three or four blocks (about a quarter of a mile) to a nearby school, corner store or public park, these services are today often several miles away.



The cost of providing sidewalks to homes in traditional neighborhoods can be substantially less than the cost of providing sidewalks in large lot subdivisions.

Second, large lot zoning has increased lot widths in many new neighborhoods to the point that installation of a sidewalk has become relatively expensive. Consider, for example, the cost per housing unit of providing sidewalks for three 50-foot wide lots or one 150-foot wide lot.

Third, today's new developments often lack interest to encourage pedestrian activity. Homes are set back from the street great distances and lack functional front porches. Street trees are not provided for shade, and streetlights are few and far between.

Policies for Sidewalks

Policy SW-1: Where no sidewalks are present in existing developed areas, sidewalks shall be provided on a priority basis to connect residential areas to major pedestrian destinations.

Many parts of Salisbury, developed in the past few decades, have no sidewalks whatsoever. Existing pedestrian traffic to nearby major destinations could be supported, and additional pedestrian traffic could be encouraged by the provision of sidewalks. Obviously, not all areas of the city have equal need for sidewalks, nor does the City have unlimited financial resources to pay for sidewalks everywhere at once. It will therefore be necessary to establish criteria for determining where

sidewalks are most needed. While pedestrian access to schools may be one obvious criterion, other factors may also have merit. A well-worn path in the grass at the side of a street, for example, is a strong indication that there exists demand for sidewalks in that location. In other situations, the installation of a particular sidewalk section may provide a critical link in a complete sidewalk system.

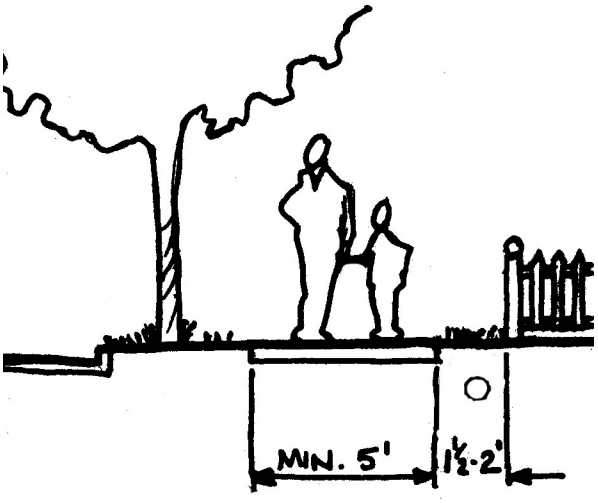
Policy SW-2: In newly developing areas, sidewalks shall be required as an integral part of the community's basic infrastructure.

Before World War II, new neighborhoods were developed with sidewalks as an essential component of a complete community. After the war, as suburban residential development densities decreased and residential areas became more isolated from services, sidewalks gradually disappeared from the design of many suburban neighborhoods. With the advent of new urbanism, or a return to the traditional neighborhoods of pre-war America, sidewalks are once again being recognized as an important feature of a functional community. This policy, therefore calls for the provision of sidewalks as an essential part of the up front infrastructure of a neighborhood, no less important than paved streets and water and sewer lines.

Policy SW-3: Sidewalk width shall be determined according to anticipated pedestrian traffic volumes. Except where constrained by unusual physical limitations, a minimum sidewalk width of five feet shall be required.

Just as streets should be built according to their intended traffic volume, sidewalks should be built according to their intended pedestrian traffic volume. While shopping districts, school areas, and public facilities may call for a minimum sidewalk width of 8 feet, and occasionally up to 20 feet or more, most residential areas can be adequately served by 5-foot wide walks. According to urban design experts, sidewalks less than 5 feet in width do not allow two people to walk together side by side comfortably. In addition, if the sidewalk runs along an adjoining wall, hedge, fence or other vertical element, an additional 1½ to 2 feet of width is necessary to accommodate the human tendency to maintain a clear distance from such obstructions. Depending on the circumstances, it may be best to simply leave this 1½ to 2 foot buffer area unpaved to allow for access to underground utilities just outside the sidewalk.

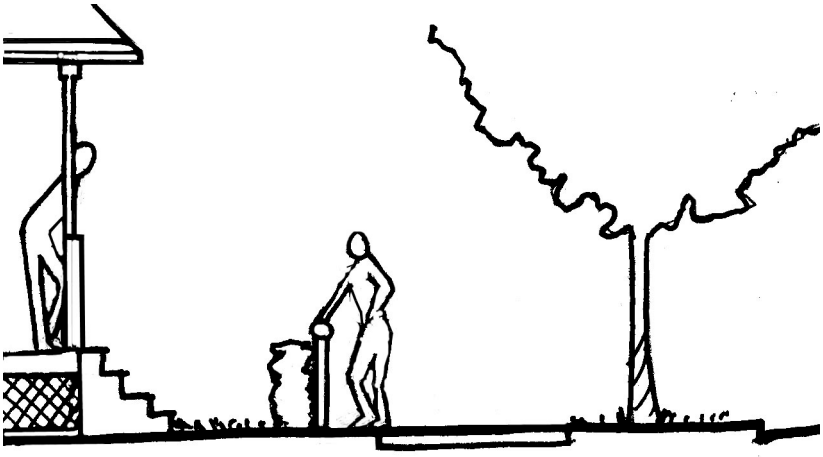
The same principal applies on the street side of the sidewalk, where a minimum 1½ to 2 foot buffer area should be left adjacent to the back of the curb. Unfortunately, right of way limitations and/or pre-existing utilities sometimes provide for cramped conditions, requiring the sidewalk to be placed right against the back of the curb. This puts the pedestrian on the sidewalk in an uncomfortable and insecure position relative to fast moving traffic on the adjoining pavement. Ideally, there should be a 4 to 6 foot planted plaza strip between the sidewalk and the curb. As noted elsewhere in this plan, street trees and on-street parking provide for the most effective protective buffer for pedestrians.



Sources: J.J. Fruin, Pedestrian Planning and Design, Metropolitan Association of Urban Designers and Environmental Planners, New York, 1971 pp. 44 and
J.H. Allen, "Engineering Pedestrian Facilities" in Getting There By All Means: Interrelationships of Transportation Modes, 8th International Pedestrian Conference, City of Boulder, CO 1987, pp. 213-222

Policy SW-4: Except where constrained by physical limitations or other obvious reasons, sidewalks shall be required on both sides of the street.

The placement of sidewalks on only one side of the street is undesirable for several reasons. First, a sidewalk on only one side forces the pedestrian to cross over to the far side of the street and back again to reach a destination on the near side of the street. While this may seem like a minor inconvenience at first glance, it is no small matter to the small child walking to a friend's house, a mother pushing a stroller, or an elderly person out for a stroll around the block. Second, a sidewalk on only one side of the street denies residents on the non-sidewalk side opportunities for social interaction with their neighbors. In this regard, the important relationship between the front porch and the public walk cannot be overemphasized. Alternatively, a person working in the yard is less apt to interact with a person walking on the far side of the street.



Third, small children, who may use the sidewalk as a primary play area, are denied this option. Consider the small child who uses the public walk for hopscotch and other games, for tricycling or other wheeled toys, and for joining up with other small friends on the same side of the street.

Finally, note that there may be situations where topography allows for sidewalk installation on only one side of a street. A street side slope may fall off rapidly, for example, making the provision of a sidewalk on that side of the street unfeasible.

Policy SW-5: Marked crosswalks shall be considered at all locations where significant pedestrian activity occurs now or is to be encouraged.

As streets and intersections have gotten wider, blocks longer, and traffic speeds higher, the pedestrian takes his life in his own hands when crossing many streets. While the long-standing rule that “the pedestrian has the right of way” is technically the law of the land, few pedestrians put much confidence in it, and for good reason. Policy SW-5 seeks to restore some measure of safety to the pedestrian. This may involve little more than painting crosswalk stripes on the pavement, or it may involve more elaborate means, such as overhead signage or an on-demand (push button) traffic signal. Changes in pavement material may also be employed, whether they are rumble strips in advance of the crossing, or other change in pavement material at the actual place of crossing. Such paving materials may include, for example, stamped concrete or asphalt, brick pavers, colored concrete or other materials. Finally, it should be noted that such crosswalks work best on major streets when executed in conjunction with the installation of central medians (**Policy S-3**), and smaller turning radii at intersections. (**Policy S-15**)

Summary of Policies for Sidewalks

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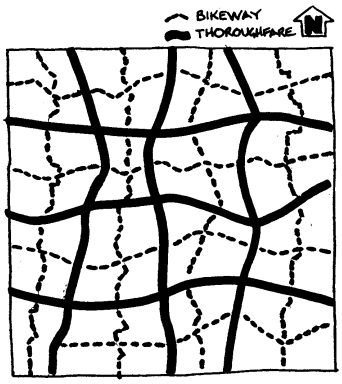
Bikeways

Summary of Issues

Around the turn of the last century, bicycles were a very popular form of transportation. Despite the predominance of dirt roads in many communities, bicycles were used for commuting to work, to the trolley line, and for pleasure (a la “A Bicycle Built for Two”). It is no surprise that the success of a bicycle shop in Dayton, Ohio allowed its two owners to build and fly the world’s first working airplane at Kitty Hawk, North Carolina. Bicycles were then a big business and an important transportation option for many people.

Today, there are two major problems confronting the widespread use of bicycles in Salisbury. The first is the perception of bicycling as primarily a recreational pursuit. The second, more significant problem is a street system that forces all commuters, including bicyclists, onto a limited number of high traffic volume thoroughfares that are not designed to accommodate bicycles. The first problem is actually a function of the second, in that until Salisbury’s street system is properly configured to accommodate bicycles, thereby increasing the number of bicyclists on the street, bicycling will continue to be viewed primarily as a recreational outlet.



The idealized bikeway system depicted above has evenly spaced north-south and east-west routes positioned midway between thoroughfares. This type of system is typically not possible in today’s suburbs where streets from adjoining neighborhoods do not connect. Also, topography and streams may preclude such uniform spacing of bikeways and thoroughfares. Even so, the map illustrates a goal to be pursued in laying out a bikeway system.

Policies for Bikeways

Policy B-1: Bikeways shall be planned for as a system-wide component of Salisbury’s transportation planning.

Ideally, evenly spaced north-south and east-west major routes should form the backbone of a citywide bikeway system. In Salisbury, the stream-dissected topography of the area essentially precludes such a uniform treatment. However, these same stream corridors offer great promise for the development of a system of greenway/bikeway trails throughout much of the city.

A design charrette held several years ago by an Urban Design Assistance Team (UDAT) included a conceptual greenway plan for the City of Salisbury. The 1995 concept plan capitalizes upon a network of steam corridors, and seeks to connect public parks, schools, the colleges, the Veterans Administration hospital and other key destinations together along various greenway segments. In doing so, the plan also offers hope for creating a network of bikeways serving many parts of the

city. In looking to carry out the plan, the City staff has incorporated NC DOT Bicycle Route Standards into preliminary designs for the first phase implementation of the greenway plan.

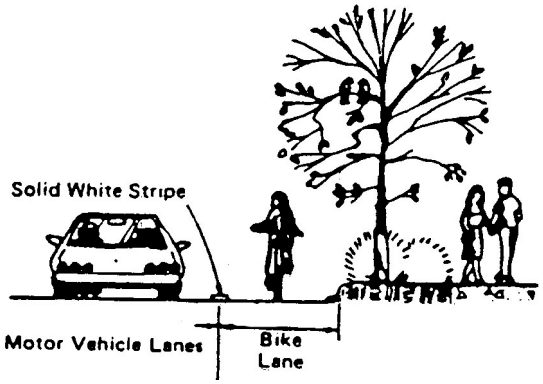
Still, greenway trail acquisition and construction is quite expensive. It should be remembered that the least costly way to develop bike routes is to employ a network of interconnected, existing streets. Unfortunately, such use of interconnected streets is hampered, especially in newer, suburban sections of the city, by residential streets that do not connect with one another, but rather lead only to the major thoroughfares.

One of the simplest and most effective actions that the City could take, therefore, in providing for bikeways, would be to require that new residential developments connect their streets with adjacent developments. This would allow bicyclists to travel along the *interior* streets of neighborhood planning areas, without having to travel on major thoroughfares.

Even so, the concept of a backbone system has validity in that certain critical design details of major bikeways can be given particular attention along these routes. Examples include places where bicycles must cross major thoroughfares, railroad tracks, etc.

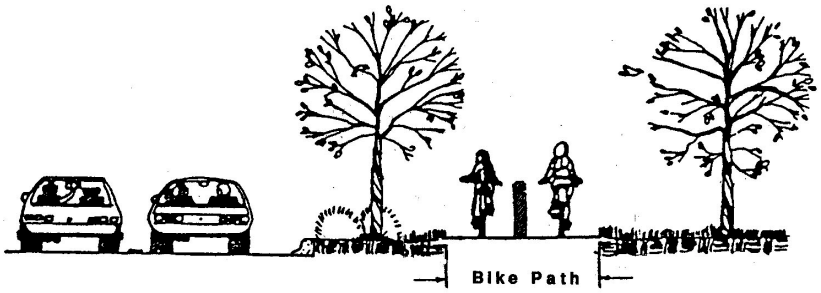
Policy B-2: The City shall facilitate a multiple option approach to bikeway development, including: 1) compatible bike lanes on major streets, 2) paths not on the street but within rights-of-way, 3) separated off-street trails, and 4) effective use of minor streets and alleyways. Emphasis shall be placed on option 4.

A single option approach to bikeway development is seldom possible in the real world. Bikeway planners have become quite adept, out of necessity, in employing whatever opportunities arise to achieve a connected bikeway system. Of the four bike route options available, *the effective use of minor streets* and alleyways is the least expensive—generally, this can be accomplished simply by intelligent planning in the layout of new neighborhoods.

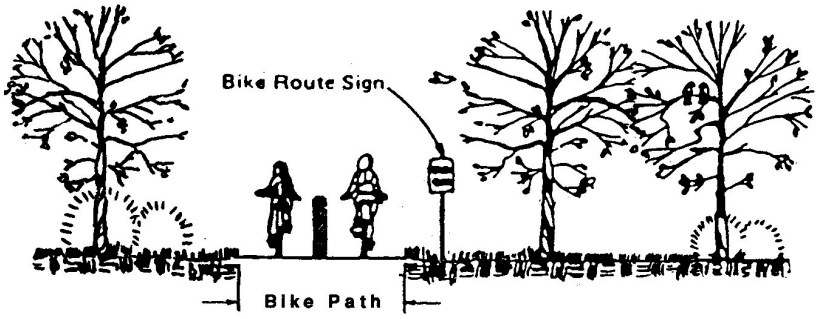


The next least expensive alternative is the addition of *compatible bike lanes on appropriate major streets*. In this case, “appropriate” generally means streets that are not so cut up with commercial driveways as to be dangerous to bicyclists. Normally, a strip of asphalt along the outside lane of the street is all that is required.

Bike paths not on the street but within rights-of-way are more expensive in that they require the construction of separate paths specifically for bikes (sidewalks are generally not suitable for bicycle commuting due to the many grade changes, narrow pavement, and conflicts with pedestrians.) Such bike paths have their greatest utility along major thoroughfares where traffic volumes are high, the roadway surface dangerously congested, and where there are no alternative routes on the interior of the neighborhood planning area.

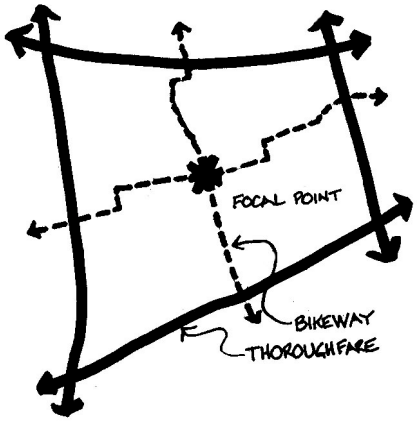


Separated off-street trails have the advantage of totally removing the bicycle from potential sideswipes or other accidents with cars. The disadvantage of the off-street trail is that it tends to be viewed more as a recreational opportunity than as a serious transportation mode. Off-street trails may also be so remote from urban activity centers and destinations that they have little utility for commuting or running errands. Therefore, if this alternative is employed, such trails should, whenever possible, connect with places of employment, shopping, and gathering.



Policy B-3: All future road construction and improvements shall be examined for bikeway feasibility and conformity with the citywide bikeway plan. As appropriate, bikeways shall be included in the road construction or improvements.

This policy is intended to explicitly recognize bikeways in the planning and design process for all new road construction or improvements to existing roads including, for example, road widenings. Whether the road is to be built as a state highway or a local city street, such review needs to occur if bikeways are to be given serious consideration. The policy also puts the North Carolina Department of Transportation on notice that the City of Salisbury places a high value on opportunities for bikeway development, and expects NCDOT to do the same when planning for projects within the Salisbury urban area. Not coincidentally, Salisbury's official, state-approved Thoroughfare Plan contains a "bicycle layer" that may be used in implementing this policy.



Policy B-4: All future subdivision plats and site plans shall be examined for bicycle compatibility and conformity with the citywide bikeway plan. As appropriate, bikeway routes shall be identified and planned for in the construction of such subdivisions or other development projects.

An important objective of the bikeway plan should be to incorporate at least one east-west and one north-south bike route within each neighborhood planning area. (Remember that a neighborhood planning area may be defined as an area of the city, generally one-half to one mile on a side, and framed by major thoroughfares or other physical boundaries. Neighborhood planning areas, in turn, are made up of the various subdivisions and other development projects within their borders.) This policy calls for the City's review process for subdivisions and development projects to recognize bicycle compatibility and conformity with the citywide bikeway plan as an explicit review criterion.

In Salisbury's relatively mild climate and modest terrain, there is little reason why bicycles should not offer a legitimate transportation alternative within the community. Bikeways are small enough that they can pass through a neighborhood planning area without being viewed as an outside traffic intrusion. In some situations, a bikeway may conveniently intersect with a neighborhood focal point in the heart of a neighborhood planning area. At the same time, crossovers of major thoroughfares may logically occur at the middle of the side of neighborhood planning area, perhaps in conjunction with a traffic light serving a neighborhood street outlet. The point is, without advanced planning and forethought given to bikeway possibilities, such bikeways will never happen. Reviews of subdivisions and site plans may offer the best opportunity to implement a bikeway plan in incremental fashion, as the City develops.

Policy B-5: The provision of secure bike storage shall be encouraged at shopping and work places.

With the advent of the personal automobile as the mainstay of transportation today, the City's ordinances have gone to considerable lengths to accommodate the parking (storage) needs of the car. If the bicycle is to achieve even partial status as a transportation alternative, it will be important to provide secure bike storage at places of employment and business. At the very least, bike storage should include bicycle racks convenient to the entrances of buildings and other activities. Even better, consideration should be given to the construction of small bicycle "garages", consisting of individual lockers for the storage of bicycles and/or associated gear (bicycle helmets, detachable bicycle amenities, etc.)

Summary of Policies for Bikeways

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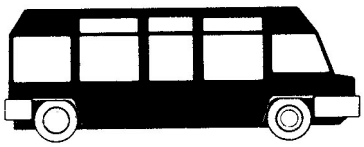
Public Transportation



Summary of the Issues

Since the World War II, public perceptions about public transit have changed dramatically. As our cities have become more dependent upon the individual automobile, most of us have been conditioned to believe that public subsidies to the bus system are a *cash-out-of-pocket cost*, while our much *greate*r public subsidies to the road system (and hence the individual automobile) are a *public necessity.* Unlike bus system subsidies, however, these subsidies are largely hidden or accepted matter-of-factly as a cost of living.

…in taking over the burden of public and private transportation, both passengers and freight, the motorcar has, with the aid of extravagant public subsidies…wrecked the balanced transportation system that existed a generation ago…

Lewis Mumford
January 12, 1962

In Salisbury's case, responsibility for the bus system was taken over by the City of Salisbury in the early 1960's, just as the consequences of suburban sprawl were beginning to take effect. In this automobile-oriented environment, it comes as no surprise that the bus service is not self-supporting through fares received. In the current year, for example, fares charged for bus service covered approximately 22% of the operating costs of the system. Another 23% of operating costs came from the Federal Transit Administration (FTA), with the balance being covered by local funding sources. (Source: Steve Martin, Salisbury Transit Service.)

In contrast to the "subsidies" for the bus system, we tend to view funding for road construction and maintenance as a public "necessity". Consider the huge federal, state and local subsidies for sprawling street systems, multiple lane thoroughfares, highways, bridges and interstates. Fuel taxes, included in the cost of gasoline, create a steady source of capital to expand the street and highway network. Meanwhile, the ever-expanding road system and sprawling development patterns work in a vicious circle to accelerate the total amount of mileage traveled each year relative to the growth of the population. Thus, the system of fuel taxation and road construction perpetuates itself.

Over and above fuel taxation policies, Congressional appropriations divert massive sums of money to the nation's transportation infrastructure, usually with some budget "crumbs" (relatively speaking) set aside for mass transportation, bicycle facilities, and other alternatives to the automobile.

The American car is fueled by annual subsidies of more than $200 billion, four times larger than the (federal government) deficit reduction package.... We don't pay the true cost of the car at the showroom or the gas pump. We pay it in our medical insurance, or by raising taxes.

David Morris, 1990

In contrast to the individual automobile, public transit has many redeeming values and few negative ones. Public transit reduces congestion on the streets and generates less air pollution. It also cuts down on the need for extensive parking lots, thereby reducing visual blight, and storm water runoff from paved surfaces.[1] On another level, public transit can be instrumental in encouraging persons of different racial, ethic and economic class to at least "share the same space"

[1] It should be remembered that the individual automobile requires no fewer than 3 parking spaces to serve its needs: one space at home, one space at work, one space for shopping, etc. Public transit alleviates the need for many of these parking spaces, thereby creating a more attractive and livable community.

during their daily commute, perhaps breaking down social barriers to some degree.

Policies for Public Transportation

Policy PT-1: The operational success of Salisbury's public transit system shall be supported and enhanced through the encouragement of compact, transit sensitive development patterns.

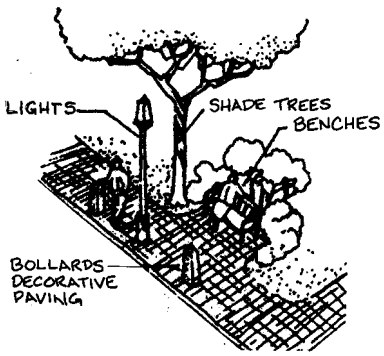
Isn't it funny that we "invest" in road construction, but we "subsidize" transit? It puts you at an immediate disadvantage.

***Andres Duany*, 1999**

During the town meetings held for the Comprehensive Plan, support for public transit was clearly evident. In fact, among all transportation issues, public transit was the second most frequently identified issue receiving support. Citizens expressed a clear desire that Salisbury's current bus system should be enhanced and expanded where possible. Two objectives of City government, therefore, should be: (1) to continue to support and expand the bus system where reasonable need can be justified, and (2) to promote and reinforce development patterns and neighborhoods that make bus service more effective to operate.

Policy PT-2: Site planning for major developments shall incorporate transit stops and convenience clusters.

Policy PT-1 above addresses the need for community design at the macro scale- a more compactly developed community makes public transit more economical to operate. Policy PT-2, on the other hand, is intended to address community design at the micro level- individual development projects should include transit stops and convenience clusters in their site plans from the beginning.



This means that instead of having a bus stop out on the highway, perhaps on the opposite side of the road from the hospital or shopping center, a specially designed bus stop is located at the front door of the hospital. It may mean that instead of only a small bus stop sign at the side of the road, a bus shelter is provided near the front entrance to the mall, complete with newspaper racks, a drinking fountain, area lighting and other amenities. Developers often budget large sums of money on parking facilities for individual cars, yet often overlook the needs of buses and their passengers. This policy seeks to give some level of support to the bus system.

Summary of Policies for Public Transportation

Policy PT-1: The operational success of Salisbury's public transit system shall be supported and enhanced through the encouragement of compact, transit sensitive development patterns.

Policy PT-2: Site planning that incorporates transit stops and convenience clusters shall be required, where appropriate.